MHRA Device Safety Information

Reference: MDSI2302 **Issued:** 31 January 2023 **Review Date:** 31 January 2024

Belzer UW Cold Storage Solution and Belzer MPS UW Machine Perfusion Solution manufactured by Carnamedica: Contamination

Summary

Carnamedica has identified issues with third-party suppliers, which could result in microbiological contamination, particulate matter within the solution, and leakage of fluid.

Action

1. Check and segregate stocks of Belzer UW Cold Storage Solution and Belzer UW Machine Perfusion Solution.

2. NHS Blood and Transplant has advised that Custodiol HTK manufactured by Dr. Franz Kohler Chemie GmbH should be used as an alternative product for cold storage of organs for transplant. If using alternative reagents such as HTK, please be aware of the different storage requirements. Please ensure you follow the manufacturer's instructions for storage carefully. Be aware that the labelling on Custodiol HTK bags is similar to that of saline bags and take steps to avoid accidental use of the incorrect product.

3. For those working with tissues and cells where Belzer UW Cold Storage Solution is used, please consider whether an alternative product can be used.

4. For purposes where Custodiol HTK is not an appropriate alternative (for example, islet cell processing), existing stocks of Belzer UW Cold Storage Solution and Belzer UW MPS Machine Perfusion Solution, excluding those from LOTs listed above, can be used **at risk**. Prior to use, each bag should be visually inspected for:
    - Discolouration – fluid should be colourless and clear
    - Particulate matter
    - Leakage – squeeze the bag firmly

    Bags with any of these defects should not be used and the defect should be reported to Bridge to Life and your national incident reporting authority. Bags with defects should be quarantined and arrangements made to return them to the manufacturer where possible for further investigation and testing.

    When using bags without a visible product defect please continue to follow any local guidelines and procedures that govern the sampling and testing of fluid for microbial contaminants.

5. Patients who have received an organ preserved with Belzer UW Cold Storage Solution or Belzer UW MPS Machine Perfusion Solution should be placed under increased vigilance.
    - If a transplant recipient develops an infection with an unusual organism or with an unusual antibiotic resistance pattern after receiving an organ or cells from an organ

preserved with Belzer UW Cold Storage Solution, please report these through both NHSBT clinical governance and your national incident reporting authority.
- If a transplant recipient develops unexpected vascular complications, including regional ischaemia, regional necrosis and delayed graft function after receiving an organ, or cells from an organ preserved with Belzer UW Cold Storage Solution, please report these cases through both NHSBT clinical governance and your national incident reporting authority.

6. Report adverse incidents to your local management system and to IRIC

Equipment details

Device Name: Belzer UW Cold Storage Solution and Belzer MPS UW Machine Perfusion Solution

Affected lot numbers/serial numbers: All

Manufactured by Carnamedica, UK Responsible Person Bridge to Life

Background

Carnamedica, the manufacturer of Belzer UW Cold Storage Solution and Belzer MPS UW Machine Perfusion Solution, has identified issues with third-party suppliers, which could result in:
- microbiological contamination,
- particulate matter within the solution, and
- leakage of fluid.

Belzer UW Cold Storage Solution (CSS) is intended for flushing and cold storage of kidney, liver and pancreas organs at the time of their removal from the organ donor in preparation for storage, transportation and eventual transplantation into a donor recipient.

Belzer UW Machine Perfusion Solution (MPS) is intended for the in-vitro flushing and continuous hypothermic machine perfusion preservation of explanted kidneys.

The manufacturer (Carnamedica) has identified a number of issues with their third-party suppliers of Belzer UW Cold Storage Solution and Belzer MPS UW Machine Perfusion Solution. Concerns have been raised about the aseptic filling process, leak testing of the bags and the conditions under which filled bags are stored and transported.

To date, two strains of microbial organisms, Brachybacterium conglomeratum and Kocuria rhizophila, have been cultured from contaminated Cold Storage Solution. The potential clinical consequences of using a product with microbial contamination include peritonitis, infection, sepsis and failure of graft. In the UK, reports of discoloured solution, later identified as microbial contamination, have been received involving two LOT numbers of 1L Cold Storage Solution, 010722 and 061022, to date.

In addition, bags have been identified containing visible particulate matter. Carnamedica has identified that this is hydroxyethyl starch precipitated from the solution. This could potentially occlude small capillaries in transplant organs and result in regional ischaemia, regional necrosis, delayed graft function and loss of the graft. In the UK, reports of particulate matter have been received involving one LOT number of 2L Cold Storage Solution, 030122, to date.

Reports have also been received concerning leaking bags of 1L Cold Storage Solution, affecting LOTs 022422, 030222, 030322 and 090122.

Unlisted LOT numbers are not guaranteed to be unaffected by these issues. LOT numbers involved in confirmed cases have been provided to support clinicians in targeting of increased vigilance measures to patients who have received organs where affected lots were used.

The MHRA has not received reports of adverse events involving Belzer UW MPS Machine Perfusion Solution. However, they are not guaranteed to be unaffected.

Bridge to Life has issued a Field Safety Notice, dated 26 January 2023.

Carnamedica has suspended the supply of the following products to the UK pending completion of their investigation and implementation of corrective actions:

- 1L Cold Storage Solution (BUWC1): LOTs 010722, 022422, 030222, 061022, 090122, 081222, 030322, 110922
- 2L Cold Storage Solution (BUWC2): LOT 030122, 030722, 123021
  Note: LOTs 123021 and 030722 were not included in the Field Safety Notice dated 26 January 2023
- Machine Perfusion Solution (MPSC): LOT 110822

A review of data held by the MHRA shows no safety signals resulting from reports of infections over the last 5 years associated with Belzer UW cold storage solution or Belzer UW machine perfusion solution. The manufacturer has also not received any reports of infections related to these devices.

Suggested onward distribution

- Transplant Unit Directors / Co-ordinators
- Healthcare professionals involved in organ retrieval, transfer and transplantation
- Healthcare professionals and laboratory staff involved in the receipt, use and storage of tissue derived from organs for transplantation – for example, accessory vessels
- Healthcare professionals and laboratory staff involved in cell isolation work as a function of islet and hepatocyte laboratories.

Instructions for Medical Device Safety Officer/Medication Safety Officer (Incidents and alerts Safety Officers (ISOs) in Scotland): Please circulate/forward to relevant departments.

Stakeholder engagement

- NHS Blood and Transplant
- Human Tissue Authority
- Scottish National Blood Transfusion Service
- Health and Social Services Group, Wales
- Northern Ireland Blood Transfusion Service

Enquiries

Enquiries and adverse incident reports should be addressed to:

Incident Reporting & Investigation Centre (IRIC)
NHS National Services Scotland
Tel: 0131 275 7575 Email: nss.iric@nhs.scot

Accessibility: Please contact us using the above details if you are blind or have a sight impairment and would like to request this alert in a more suitable format.

IRIC remit: general information about adverse incidents, safety alerts and IRIC's role can be found in CEL 43 (2009), *Safety of Health, Social Care, Estates and Facilities Equipment: NHS Board and Local Authority Responsibilities,* issued 30 October 2009.

Report an incident: Information on how to report an adverse incident

NHS National Services Scotland is the common name for the Common Services Agency for the Scottish Health Service https://www.nss.nhs.scot/